

$$y = 3x + 1$$

$$f(x) = 3x + 1$$

$$f(3) = 3(3) + 1$$

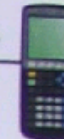
$$f(3) = 10$$

$$f(2) = 3(2) + 1$$

$$f(2) = 7$$

# EXERCISES

You will need your calculator for problems 1, 2, and 9.



## Practice Your Skills

1. Find each function value for  $f(x) = 3x + 2$  and  $g(x) = x^2 - 1$  without using your calculator. Then enter the equation for  $f(x)$  into  $Y_1$  and the equation for  $g(x)$  into  $Y_2$ . Use function notation on your calculator to check your answers. [▶ See Calculator Note 8A to review function notation on your calculator. ◀]

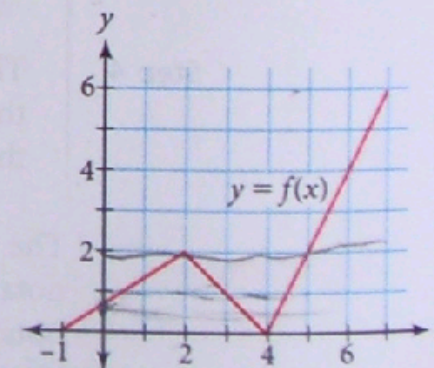
a.  $f(3)$                       b.  $f(-4)$                       c.  $g(5)$                       d.  $g(-3)$

2. Find the  $y$ -coordinate corresponding to each  $x$ -coordinate if the functions are  $f(x) = -2x - 5$  and  $g(x) = 3.75(2.5)^x$ . Check your answers with your calculator.

a.  $f(6)$                       b.  $f(0)$                       c.  $g(2)$                       d.  $g(-2)$

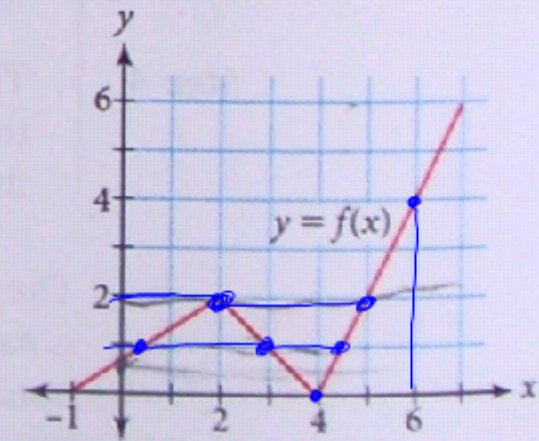
3. Use the graph of  $y = f(x)$  at right to answer each question.

- What is the value of  $f(4)$ ?
- What is the value of  $f(6)$ ?
- For what value or values does  $f(x) = 2$ ?
- For what value or values does  $f(x) = 1$ ?
- How many  $x$ -values make the statement  $f(x) = 0.5$  true?
- For what  $x$ -values is  $f(x)$  greater than 2?
- What are the domain and range shown on the graph?



3. Use the graph of  $y = f(x)$  at right to answer each question.

- What is the value of  $f(4)$ ?  $= 0$
- What is the value of  $f(6)$ ?  $= 4$
- For what value or values does  $f(x) = 2$ ?  $x = 2, 5$
- For what value or values does  $f(x) = 1$ ?  $x = \frac{1}{2}, 3, 4\frac{1}{2}$
- How many  $x$ -values make the statement  $f(x) = 0.5$  true? 3
- For what  $x$ -values is  $f(x)$  greater than 2? bigger than 5
- What are the domain and range shown on the graph?



$x$ -values  
 $[-1, 7]$   
 Domain

$y$ -values  
 Range  
 $[0, 6]$

Today

- finish up loose ends

Friday

- District Algebra Test

Monday

- New unit

Today

Finish 8.4 #1-6, 12-17

Do 8.3 #6, 10, 15ab, 16ac

HW

Finish above